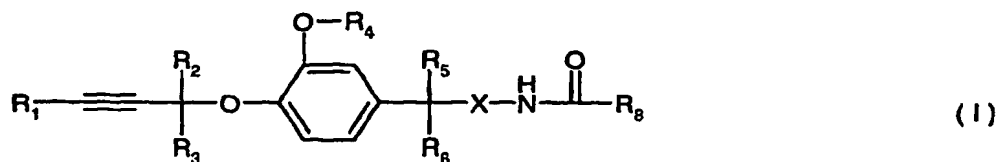


What is claimed is:

## 1. A compound of formula I



including the optical isomers thereof and mixtures of such isomers, wherein

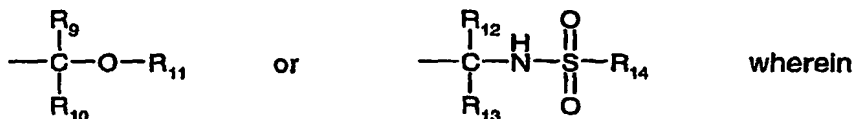
R<sub>1</sub> is hydrogen, C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, phenyl or naphthyl; phenyl and naphthyl being optionally substituted by one to three substituents selected from the group comprising C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>2</sub>-C<sub>8</sub>-alkenyl, C<sub>2</sub>-C<sub>8</sub>-alkynyl, C<sub>1</sub>-C<sub>8</sub>-haloalkyl, C<sub>1</sub>-C<sub>8</sub>-alkoxy, C<sub>1</sub>-C<sub>8</sub>-haloalkoxy, C<sub>1</sub>-C<sub>8</sub>-alkylthio, C<sub>1</sub>-C<sub>8</sub>-haloalkylthio, C<sub>1</sub>-C<sub>8</sub>-alkylsulfonyl, halogen, cyano and nitro;

R<sub>2</sub>, R<sub>3</sub>, R<sub>5</sub>, R<sub>6</sub>, and R<sub>7</sub> are each independently of each other hydrogen or C<sub>1</sub>-C<sub>6</sub>-alkyl;

R<sub>4</sub> is C<sub>1</sub>-C<sub>6</sub>-alkyl; or

X is O or N-R<sub>7</sub>; and

R<sub>8</sub> is a group



R<sub>9</sub> is phenyl, naphthyl, 1,3-biphenyl or 1,4-biphenyl, each optionally substituted by one to three substituents selected from the group comprising C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>2</sub>-C<sub>8</sub>-alkenyl,

C<sub>2</sub>-C<sub>8</sub>-alkynyl, C<sub>1</sub>-C<sub>8</sub>-haloalkyl, C<sub>1</sub>-C<sub>8</sub>-alkoxy, C<sub>1</sub>-C<sub>8</sub>-haloalkoxy, C<sub>1</sub>-C<sub>8</sub>-alkylthio,

C<sub>1</sub>-C<sub>8</sub>-haloalkylthio, C<sub>1</sub>-C<sub>8</sub>-alkylsulfonyl, halogen, cyano, nitro and C<sub>1</sub>-C<sub>8</sub>-alkoxycarbonyl;

R<sub>10</sub> and R<sub>11</sub> are each independently hydrogen, C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>1</sub>-C<sub>8</sub>-haloalkyl, C<sub>3</sub>-C<sub>8</sub>-alkenyl or C<sub>3</sub>-C<sub>8</sub>-alkynyl;

R<sub>12</sub> is C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, phenyl or naphthyl; phenyl and naphthyl being optionally substituted by one to three substituents selected from the group comprising C<sub>1</sub>-C<sub>8</sub>-alkyl,

C<sub>2</sub>-C<sub>8</sub>-alkenyl, C<sub>2</sub>-C<sub>8</sub>-alkynyl, C<sub>1</sub>-C<sub>8</sub>-haloalkyl, C<sub>1</sub>-C<sub>8</sub>-alkoxy, C<sub>1</sub>-C<sub>8</sub>-haloalkoxy,

C<sub>1</sub>-C<sub>8</sub>-alkylthio, C<sub>1</sub>-C<sub>8</sub>-haloalkylthio, C<sub>1</sub>-C<sub>8</sub>-alkylsulfonyl, aryl, halogen, cyano and nitro

R<sub>13</sub> is hydrogen, C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>1</sub>-C<sub>8</sub>-haloalkyl, C<sub>3</sub>-C<sub>8</sub>-alkenyl or C<sub>3</sub>-C<sub>8</sub>-alkynyl; and

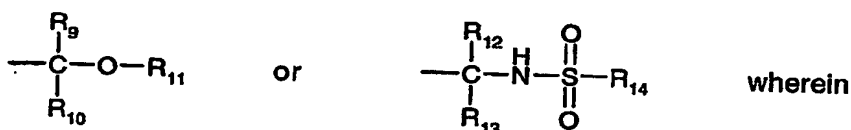
R<sub>14</sub> is C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>1</sub>-C<sub>8</sub>-haloalkyl, C<sub>1</sub>-C<sub>8</sub>-alkylamino or C<sub>1</sub>-C<sub>8</sub>-dialkylamino.

2. A compound according to claim 1 wherein R<sub>10</sub> is hydrogen or C<sub>1</sub>-C<sub>8</sub>-alkyl, X is oxygen, R<sub>8</sub> is -C(R<sub>9</sub>R<sub>10</sub>)-OR<sub>11</sub> and R<sub>11</sub> is hydrogen or C<sub>3</sub>-C<sub>8</sub>-alkynyl.

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3. A compound according to claim 1 wherein X is oxygen,  $R_8$  is  $-C(R_{12}R_{13})NH-SO_2-R_{14}$ , and  $R_{12}$  is  $C_1$ - $C_8$ -alkyl or branched  $C_1$ - $C_8$ -alkyl.

4. A compound of formula I according to any of claims 1 to 3, wherein  $R_1$  is hydrogen,  $C_1$ - $C_8$ -alkyl,  $C_3$ - $C_8$ -cycloalkyl, phenyl or naphthyl; phenyl and naphthyl being optionally substituted by one to three substituents selected from the group comprising  $C_1$ - $C_8$ -alkyl,  $C_2$ - $C_8$ -alkenyl,  $C_2$ - $C_8$ -alkynyl,  $C_1$ - $C_8$ -haloalkyl,  $C_1$ - $C_8$ -alkoxy,  $C_1$ - $C_8$ -haloalkoxy,  $C_1$ - $C_8$ -alkylthio,  $C_1$ - $C_8$ -haloalkylthio,  $C_1$ - $C_8$ -alkylsulfonyl, halogen, cyano and nitro;  $R_4$  is  $C_1$ - $C_6$ -alkyl; or  $R_8$  is a group



$R_9$  is phenyl, naphthyl, 1,3-biphenyl or 1,4-biphenyl, each optionally substituted by one to three substituents selected from the group comprising  $C_1$ - $C_8$ -alkyl,  $C_2$ - $C_8$ -alkenyl,  $C_2$ - $C_8$ -alkynyl,  $C_1$ - $C_8$ -haloalkyl,  $C_1$ - $C_8$ -alkoxy,  $C_1$ - $C_8$ -haloalkoxy,  $C_1$ - $C_8$ -alkylthio,  $C_1$ - $C_8$ -haloalkylthio,  $C_1$ - $C_8$ -alkylsulfonyl, halogen, cyano, nitro and  $C_1$ - $C_8$ -alkoxycarbonyl;  $R_{11}$  is hydrogen,  $C_1$ - $C_8$ -alkyl or  $C_3$ - $C_8$ -alkynyl; and  $R_{14}$  is  $C_1$ - $C_8$ -alkyl,  $C_1$ - $C_8$ -haloalkyl,  $C_1$ - $C_8$ -alkylamino or  $C_1$ - $C_8$ -dialkylamino.

5. A compound of formula I according to any of claims 1 to 4, wherein  $R_1$  is hydrogen,  $C_1$ - $C_8$ -alkyl,  $C_3$ - $C_8$ -cycloalkyl; and  $R_2$ ,  $R_3$ ,  $R_5$  and  $R_6$  are hydrogen; and  $R_4$  is  $C_1$ - $C_6$ -alkyl; and  $R_9$  is phenyl, naphthyl, 1,3-biphenyl or 1,4-biphenyl, each optionally substituted by one to three substituents selected from the group comprising  $C_1$ - $C_8$ -alkyl,  $C_2$ - $C_8$ -alkenyl,  $C_2$ - $C_8$ -alkynyl,  $C_1$ - $C_8$ -haloalkyl,  $C_1$ - $C_8$ -alkoxy,  $C_1$ - $C_8$ -haloalkoxy,  $C_1$ - $C_8$ -alkylthio,  $C_1$ - $C_8$ -haloalkylthio,  $C_1$ - $C_8$ -alkylsulfonyl, halogen, cyano, nitro and  $C_1$ - $C_8$ -alkoxycarbonyl; and  $R_{10}$  is hydrogen or  $C_1$ - $C_4$ -alkyl; and  $R_{11}$  is hydrogen,  $C_1$ - $C_8$ -alkyl or  $C_2$ - $C_8$ -alkynyl; and  $R_{12}$  is  $C_1$ - $C_8$ -alkyl,  $C_3$ - $C_6$ -cycloalkyl,  $C_3$ - $C_8$ -alkenyl,  $C_3$ - $C_8$ -alkynyl; phenyl or benzyl wherein the phenyl and benzyl is optionally substituted by one to three substituents selected from the group comprising  $C_1$ - $C_8$ -alkyl,  $C_2$ - $C_8$ -alkenyl,  $C_2$ - $C_8$ -alkynyl,  $C_1$ - $C_8$ -haloalkyl,  $C_1$ - $C_8$ -alkoxy,  $C_1$ - $C_8$ -haloalkoxy,  $C_1$ - $C_8$ -alkylthio,  $C_1$ - $C_8$ -haloalkylthio,  $C_1$ - $C_8$ -alkylsulfonyl, halogen, cyano, nitro and  $C_1$ - $C_8$ -alkoxycarbonyl; and  $R_{13}$  is hydrogen or  $C_1$ - $C_4$ -alkyl; and  $R_{14}$  is  $C_1$ - $C_6$ -alkyl;  $C_1$ - $C_6$ -monoalkylamino or  $C_1$ - $C_6$ -dialkylamino.

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6. A compound of formula I according to any of claims 1 to 5, wherein  $R_1$  is hydrogen or  $C_1$ - $C_6$ -alkyl, and  $R_2$ ,  $R_3$ ,  $R_5$  and  $R_6$  are hydrogen; and  $R_4$  is methyl or ethyl; and  $R_9$  is phenyl or naphthyl each optionally substituted by one to three substituents selected from the group comprising  $C_1$ - $C_6$ -alkyl,  $C_1$ - $C_6$ -haloalkyl,  $C_1$ - $C_6$ -alkoxy,  $C_1$ - $C_6$ -haloalkoxy,  $C_1$ - $C_6$ -alkylthio,  $C_1$ - $C_6$ -haloalkylthio, halogen, cyano, nitro and  $C_1$ - $C_6$ -alkoxycarbonyl; and  $R_{10}$  and  $R_{13}$  are

each hydrogen; and R<sub>11</sub> is hydrogen or C<sub>2</sub>-C<sub>6</sub>-alkynyl; and R<sub>12</sub> is C<sub>2</sub>-C<sub>6</sub>-alkyl or C<sub>3</sub>-C<sub>6</sub>-cycloalkyl; and R<sub>14</sub> is C<sub>1</sub>-C<sub>6</sub>-alkyl or C<sub>1</sub>-C<sub>6</sub>-dialkylamino.

7. A compound of formula I according to claim 1 selected from the group comprising
- 2-hydroxy-N-(3-methoxy-4-prop-2-ynyloxy-benzyloxy)-2-phenyl-acetamide,  
N-(3-methoxy-4-prop-2-ynyloxy-benzyloxy)-2-phenyl-2-prop-2-ynyloxy-acetamide,  
2-hydroxy-N-(3-methoxy-4-pent-2-ynyloxy-benzyloxy)-2-phenyl-acetamide,  
N-(3-methoxy-4-pent-2-ynyloxy-benzyloxy)-2-phenyl-2-prop-2-ynyloxy-acetamide,  
2-(4-chloro-phenyl)-2-hydroxy-N-(3-methoxy-4-prop-2-ynyloxy-benzyloxy)-acetamide,  
2-(4-chloro-phenyl)-N-(3-methoxy-4-prop-2-ynyloxy-benzyloxy)-2-prop-2-ynyloxy-acetamide,  
2-(4-chloro-phenyl)-2-hydroxy-N-(3-methoxy-4-pent-2-ynyloxy-benzyloxy)-acetamide,  
2-(4-chloro-phenyl)-N-(3-methoxy-4-pent-2-ynyloxy-benzyloxy)-2-prop-2-ynyloxy-acetamide,  
2-(4-bromo-phenyl)-2-hydroxy-N-(3-methoxy-4-prop-2-ynyloxy-benzyloxy)-acetamide,  
2-(4-bromo-phenyl)-N-(3-methoxy-4-prop-2-ynyloxy-benzyloxy)-2-prop-2-ynyloxy-acetamide,  
2-(4-bromo-phenyl)-2-hydroxy-N-(3-methoxy-4-pent-2-ynyloxy-benzyloxy)-acetamide,  
2-(4-bromo-phenyl)-N-(3-methoxy-4-pent-2-ynyloxy-benzyloxy)-2-prop-2-ynyloxy-acetamide,  
2-(3,4-dichloro-phenyl)-2-hydroxy-N-(3-methoxy-4-prop-2-ynyloxy-benzyloxy)-acetamide,  
2-(3,4-dichloro-phenyl)-N-(3-methoxy-4-prop-2-ynyloxy-benzyloxy)-2-prop-2-ynyloxy-acetamide,  
2-(3,4-dichloro-phenyl)-2-hydroxy-N-(3-methoxy-4-pent-2-ynyloxy-benzyloxy)-acetamide,  
2-(3,4-dichloro-phenyl)-N-(3-methoxy-4-pent-2-ynyloxy-benzyloxy)-2-prop-2-ynyloxy-acetamide,  
(S)-2-methylsulfonylamino-N-(3-methoxy-4-prop-2-ynyloxy-benzyloxy)-3-methyl-butyramide,  
(S)-2-methylsulfonylamino-N-(3-methoxy-4-pent-2-ynyloxy-benzyloxy)-3-methyl-butyramide,  
(S)-N-{4-[3-(4-chloro-phenyl)-prop-2-ynyloxy]-3-methoxy-benzyloxy}-2-methylsulfonylamino-3-methyl-butyramide,  
(S)-2-ethylsulfonylamino-N-(3-methoxy-4-prop-2-ynyloxy-benzyloxy)-3-methyl-butyramide,  
(S)-N-{4-[3-(4-chloro-phenyl)-prop-2-ynyloxy]-3-methoxy-benzyloxy}-2-N,N'-dimethylamino-sulfonylamino-3-methyl-butyramide,  
2-(4-ethyl-phenyl)-2-hydroxy-N-(3-methoxy-4-prop-2-ynyloxy-benzyloxy)-acetamide,  
2-(4-ethyl-phenyl)-2-hydroxy-N-(3-methoxy-4-pent-2-ynyloxy-benzyloxy)-acetamide,  
(S)-2-ethylsulfonylamino-N-(3-methoxy-4-pent-2-ynyloxy-benzyloxy)-3-methyl-butyramide,

(S)-N-{4-[3-(4-chloro-phenyl)-prop-2-ynyloxy]-3-methoxy-benzyloxy}-2-ethanesulfonylamino-3-methyl-butyramide,  
hydroxy-phenyl-acetic acid N'-(3-methoxy-4-prop-2-ynyloxy-benzyl)-hydrazide,  
phenyl-prop-2-ynyloxy-acetic acid N'-(3-methoxy-4-prop-2-ynyloxy-benzyl)-hydrazide,  
hydroxy-phenyl-acetic acid N'-(3-methoxy-4-pent-2-ynyloxy-benzyl)-hydrazide,  
phenyl-prop-2-ynyloxy-acetic acid N'-(3-methoxy-4-pent-2-ynyloxy-benzyl)-hydrazide,  
(4-chloro-phenyl)-hydroxy-acetic acid N'-(3-methoxy-4-prop-2-ynyloxy-benzyl)-hydrazide,  
(4-chloro-phenyl)-prop-2-ynyloxy-acetic acid N'-(3-methoxy-4-prop-2-ynyloxy-benzyl)-hydrazide,  
(4-chloro-phenyl)-hydroxy-acetic acid N'-(3-methoxy-4-pent-2-ynyloxy-benzyl)-hydrazide,  
(4-chloro-phenyl)-prop-2-ynyloxy-acetic acid N'-(3-methoxy-4-pent-2-ynyloxy-benzyl)-hydrazide,  
(4-bromo-phenyl)-hydroxy-acetic acid N'-(3-methoxy-4-prop-2-ynyloxy-benzyl)-hydrazide,  
(4-bromo-phenyl)-prop-2-ynyloxy-acetic acid N'-(3-methoxy-4-prop-2-ynyloxy-benzyl)-hydrazide,  
(4-bromo-phenyl)-hydroxy-acetic acid N'-(3-methoxy-4-pent-2-ynyloxy-benzyl)-hydrazide,  
(4-bromo-phenyl)-prop-2-ynyloxy-acetic acid N'-(3-methoxy-4-pent-2-ynyloxy-benzyl)-hydrazide,  
(3,4-dichloro-phenyl)-hydroxy-acetic acid N'-(3-methoxy-4-prop-2-ynyloxy-benzyl)-hydrazide,  
(3,4-dichloro-phenyl)-prop-2-ynyloxy-acetic acid N'-(3-methoxy-4-prop-2-ynyloxy-benzyl)-hydrazide,  
(3,4-dichloro-phenyl)-hydroxy-acetic acid N'-(3-methoxy-4-pent-2-ynyloxy-benzyl)-hydrazide,  
(3,4-dichloro-phenyl)-prop-2-ynyloxy-acetic acid N'-(3-methoxy-4-pent-2-ynyloxy-benzyl)-hydrazide,  
N-((S)-1-[N'-(3-methoxy-4-prop-2-ynyloxy-benzyl)-hydrazinocarbonyl]-2-methyl-propyl)-methylsulfonamide,  
N-((S)-1-[N'-(3-methoxy-4-pent-2-ynyloxy-benzyl)-hydrazinocarbonyl]-2-methyl-propyl)-methylsulfonamide,  
N-[(S)-1-(N'-(4-[3-(4-chloro-phenyl)-prop-2-ynyloxy]-3-methoxy-benzyl)-hydrazinocarbonyl)-2-methyl-propyl]-methylsulfonamide,  
N-((S)-1-[N'-(3-methoxy-4-prop-2-ynyloxy-benzyl)-hydrazinocarbonyl]-2-methyl-propyl)-ethylsulfonamide,

N-[(S)-1-[N'-(3-methoxy-4-pent-2-ynyloxy-benzyl)-hydrazinocarbonyl]-2-methyl-propyl]-ethylsulfonamide, and

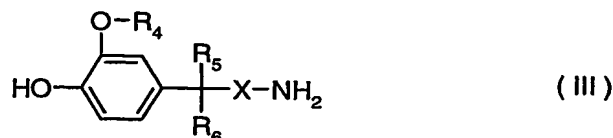
N-[(S)-1-(N'-[4-[3-(4-chloro-phenyl)-prop-2-ynyloxy]-3-methoxy-benzyl]-hydrazinocarbonyl)-2-methyl-propyl]-ethylsulfonamide.

8. A process for the preparation of a compound of formula I according to claim 1, which comprises

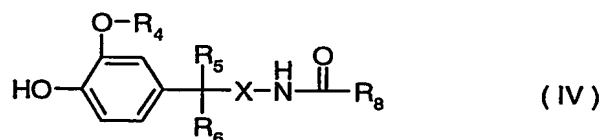
a) reacting an acid of formula II or a carboxy-activated derivative of an acid of formula II



wherein  $\text{R}_8$  is as defined for formula I with an amine of formula III



wherein  $\text{R}_4$ ,  $\text{R}_5$ ,  $\text{R}_6$  and X are as defined for formula I and reacting the intermediate phenol of formula IV

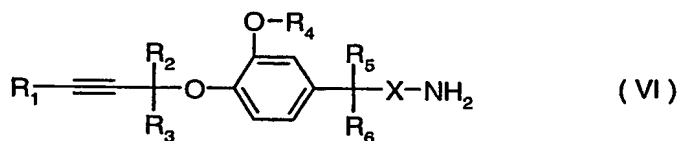


wherein  $\text{R}_4$ ,  $\text{R}_5$ ,  $\text{R}_6$ ,  $\text{R}_8$  and X are as defined for formula I with a compound of formula V



wherein  $\text{R}_1$ ,  $\text{R}_2$  and  $\text{R}_3$  are as defined for formula I and wherein Y is a leaving group; or

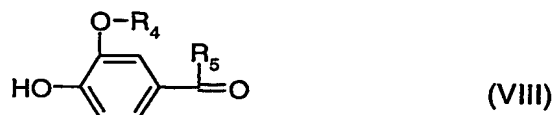
b) reacting a compound of formula VI



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wherein  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $R_6$  and  $X$  are as defined for formula I with an acid of formula II or a carboxy-activated derivative of an acid of formula II; or

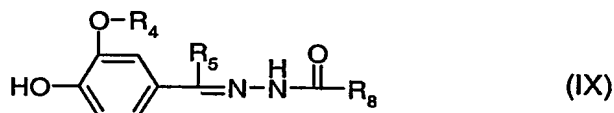
c) reacting a compound of formula VIII



wherein  $R_4$  and  $R_5$  are as defined for formula I with an acid hydrazide of formula VII



wherein  $R_8$  is as defined for formula I, and hydrating the intermediate acylhydrazone of formula IX

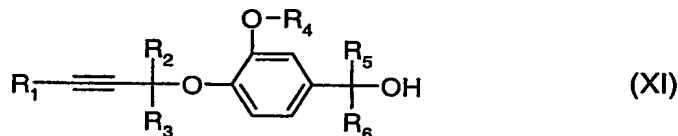


yielding in a compound of formula IVa, wherein  $R_4$ ,  $R_5$  and  $R_8$  are as defined for formula I; or

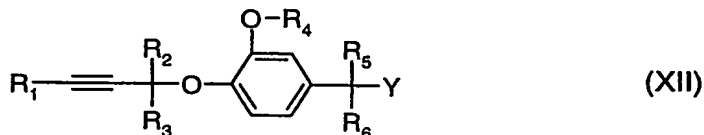
d) reacting a phenol of formula X



wherein  $R_4$ ,  $R_5$  and  $R_6$  are as defined for formula I, with a compound of formula V as defined above, and transforming the intermediate alcohol of formula XI



wherein  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$  and  $R_6$  are as defined for formula I, into a compound of formula XII,

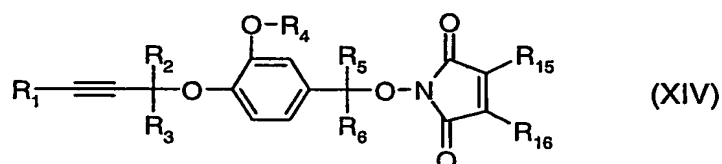


wherein  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$  and  $R_6$  are as defined for formula I and wherein  $Y$  is a leaving group like a halide such as a chloride or bromide or a sulfonic ester such as a tosylate, mesylate or triflate, and reacting the compound of formula XII with a compound of formula XIII

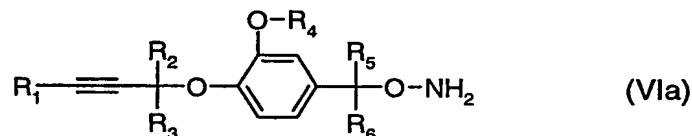
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wherein R<sub>15</sub> and R<sub>16</sub> are hydrogen, halogen, methyl or part of an annelated benzene ring to yield an N-alkoxyimide of formula XIV



wherein R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub> and R<sub>6</sub> are as defined for formula I and R<sub>15</sub> and R<sub>16</sub> are as defined for formula XIII, and reacting the n-alkoxyimide of formula XIV with an amine derivative, like methylamine or butylamine or a hydrazine derivative, such as hydrazine, hydrazine hydrate or methylhydrazine to yield a compound of formula VIa



wherein R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub> and R<sub>6</sub> are as defined for formula I.

9. A composition for controlling and protecting against phytopathogenic microorganisms, comprising a compound of formula I according to claim 1 as active ingredient together with a suitable carrier.

10. The use of a compound of formula I according to claim 1 or a composition according to claim 9 in protecting plants against infestation by phytopathogenic microorganisms.

11. A method of controlling and preventing an infestation of crop plants by phytopathogenic microorganisms, which comprises the application of a compound of formula I according to claim 1 or of a composition according to claim 9 as active ingredient to the plant, to parts of plants or to the locus thereof.

12. A method according to claim 11, wherein the phytopathogenic microorganisms are fungal organisms.